

6PP
OPPT-2002-0060-0019

FINAL
INITIAL REVIEW ENGINEERING REPORT

CBI: Yes

PMN: 99-44
PV (kg/yr):

ENGINEER: Prothero/TMB
SUBMITTER

USE: Bonding agent for sand used in foundry processes.

OTHER USES: Analog P-94-0076: metal coating

MSDS: Yes

Label: No

General Eqp.:

Respirator:

Health Effects:

TLV/PEL (PMN or raw materials):

CRSS:

Chemical Category:

VP: <1E-06 torr @25°C

S-H₂O: <0.001 g/L

MW:

Phys State:	Neat: liquid	Mfg: liquid	Proc/Form:
	solution		End Use:
	destroyed		

Consumer Use: No

SAT (concerns):

Ground Water: rapid

Health: 1-2 inhalation, dermal, ingestion, and drinking water; XB: Testing desired.

Eco: 3 all releases to water; XB: Testing desired.



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RECEIVED
98 DEC 15

PMN: 99-44

OCCUPATIONAL EXPOSURE RATING: 1-2

ASSUMPTIONS: Ref past cases P93-1398, P94-1484 (same submitter, same use).

POLLUTION PREVENTION CONSIDERATIONS: Traditional foundry resins are frequently difficult to remove from the casting. The use of this resin can alleviate these problems in foundry operations. This can generate time and energy savings in processing castings. Less raw material will be used, based on the net tonnage of good castings produced.

EXPOSURE-BASED REVIEW

Yes (0 criteria met)

- | | | |
|---|-----|---|
| 1) # of workers exposed (>1,000?): | 200 | N |
| 2) >100 workers with >10 mg/day inhalation exposure : | | N |
| 3) >100 workers w/1-10 mg/day inh. exp. & >100 days/yr: | | N |
| 4) Routine Dermal Cont: >250 workers & >100 days/yr: | | N |

PMN: 99-44

MFG:

Site/Location: 1/ Louisville, KY 40216 Days/yr: 60

Process Description:

ENVIRONMENTAL RELEASES (Eqpt. cleaning, container residue, etc.):

WATER: 1 kg/site-day over 30 Days/year

PLUS

16 kg/site-day over 1-2 Days/year

from: sampling, equipment cleaning 2nd rinse

to: on-site WWTP

basis: subm est 1 kg/bt from sampling; CEB est 2% of 2%
of batch for 2nd rinse of cleaning: $40,000 \times 0.02 \times 2 =$
16 kg/bt, once or twice annually (see contact report)

AIR: negligible (VP < 0.01 torr, liquid)

INCINERATION: none expected (equipment cleaning estimated
to water)

LANDFILL: <200 kg/yr from: spills during drumming

basis: subm est of 5 kg/by = 150 kg/yr

PMN: 99-44

MFG: cont'd

OCCUPATIONAL EXPOSURE

Tot. # of workers:	--	(submission)
Days/yr:	30	(submission estimates one day of exposure per batch)

Inhalation:

Dermal:

PMN: 99-44

USE: in metal casting molds

Site/Location: up to 15 foundries/ unknown
basis:

Days/yr: 230

Process Description:

ENVIRONMENTAL RELEASES (Eqpt. cleaning, container residue, etc.):

WATER: < 95 kg/site-day over 2-3 Day/year for 4 to 8 sites

AND

3.5 kg/site-day over 68 Days/year for 1 other site

from: tanker cleaning (4-8 sites); rinse drums (1 site)

to: on-site WWTP or POTW

basis: CEB est 0.2% loss from tanker cleaning, 80,000

kg/tanker @ 59% PMN, 2-3 tankers/site-yr; CEB est 3% drum

residual, assume 10% vol of average = 8,000 kg/yr PMN => 68

drums/yr; no water release from 4-10 sites using totes; note:

avg use rate of 80,000 kg/site-yr PMN

AIR: negligible (VP < 0.01 torr, liquid)

INCINERATION: some fraction of above water release could be
incineratedLANDFILL: some fraction of above water release could be
landfilled

PMN: 99-44

USE: cont'd

OCCUPATIONAL EXPOSURE

Tot. # of workers: 90 - 180 (subm est of 6 to 12 per site)
Days/yr: 230

Inhalation: - -

Dermal: